Michael Stephen Saxon

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Education

University of California, Santa Barbara

Ph.D., Computer Science: 4.0/4.0 Advisors: William Yang Wang, Ph.D. Santa Barbara, CA 9/2020*–present*

Arizona State University

MS., Computer Engineering: 3.9/4.0

Tempe, AZ 8/2018-5/2020

Advisors: Visar Berisha, Ph.D. & Sethuraman Panchanathan, Ph.D.

Arizona State University

BSE., Electrical Engineering; Minor, Mathematics: Magna Cum Laude

Tempe, AZ 8/2014-8/2018

Publications

Archival (and publicly available, to-be-archival preprints)



- [c23] M. Saxon, A. Holtzman, P. West, WY. Wang, N. Saphra, "Benchmarks as Microscopes: A Call for ^ Model Metrology," saxon.me/doc/metrology.pdf COLM 2024
- [ur] M. Saxon*, A. Sharma*, WY. Wang, "Losing Visual Needles in Image Haystacks: Vision Language Models are Easily Distracted in Short and Long Contexts," *Under review*, 2024
- [ur] Q. Wu, H. Zhao, M. Saxon, T. Bui, WY. Wang, Y. Zhang, S. Chang, "VSP: Assessing the dual challenges of perception and reasoning in spatial planning tasks for VLMs," Under review, 2024
- [ur] E. Tanwar, A. Chatterjee, M. Saxon, A. Albalak, WY. Wang, T. Chakraborty, "Do You Know About My Nation? An Investigation into Cultural Literacy of Multilingual Large Language Models," Under review, 2024
- [ur] W. Feng, J. Li, M. Saxon, T. Fu, W. Chen, WY. Wang, "TC-Bench: Benchmarking Temporal Compositionality in Text-to-Video and Image-to-Video Generation," Under review, 2024
- [c22] M. Saxon*, Y. Luo*, S. Levy, C. Baral, Y. Yang, WY. Wang, "Lost in Translation? Translation Errors and Challenges for Fair Assessment of Text-to-Image Models on Multilingual Concepts," NAACL 2024, Oral (5% of subs.) openreview: 4uDzjx_QX5R0 June 2024.
- [p4] M. Saxon*, M. Khoshnoodi*, F. Jahara*, Y. Lu, A. Sharma, WY. Wang, "Who Evaluates the Evaluations? Assessing the Faithfulness and Consistency of Text-to-Image Evaluation Metrics with T2ISCORESCORE," arxiv:2403.11092 Under review, Feb 2024
- [121] L. Pan, M. Saxon, W. Xu, D. Nathani, X. Wang, WY. Wang, "Automatically Correcting Large Language Models: Surveying the landscape of diverse self-correction strategies," arXiv:2308.03188, Trans. of the ACL (TACL) May 2024.
- [c20] V. Himakunthala*, A. Ouyang*, D. Rose*, R. He*, A. Mei, Y. Lu, C. Sonar, M. Saxon, WY. Wang, "Let's Think Frame by Frame with VIP: A Video Infilling and Prediction Dataset for Evaluating Video Chain-of-Thought," EMNLP 2023, arXiv: 2305.13903, Dec 2023
- [C19] X. Wang, W. Zhu, M. Saxon, M. Steyvers, WY. Wang, "Large Language Models Are Implicitly Topic Models: Explaining and Finding Good Demonstrations for In-Context Learning," NeurIPS 2023, arXiv:2301.11916, Dec 2023
- [c18] M. Saxon, WY. Wang, "Multilingual Conceptual Coverage in Text-to-Image Models," ACL 2023; ► FAccT 2023 Oral arXiv:2306.01735, [oral presentation link] Jul 2023.

- Y. Tuan, A. Albalak, W. Xu, **M. Saxon**, C. Pryor, L. Getoor, WY. Wang, "CausalDialogue: Modeling Utterance-level Causality in Conversations," **ACL 2023 F arXiv:2212.10515**, Jul 2023.
- [p2] D. Rose*, V. Himakunthala*, A. Ouyang*, R. He*, A. Mei, Y. Lu, M. Saxon, C. Sonar, D. Mirza, WY.
 Wang, "Visual Chain of Thought: Bridging Logical Gaps with Multimodal Infillings," preprint, arXiv:2305.02317, May 2023.
- [p1] **M. Saxon***, A. Mei*, S. Chang, ZC. Lipton, WY. Wang, "Users are the North Star for AI Transparency," *preprint*, arXiv:2303.05500, Mar 2023.
- [C16] M. Saxon, X. Wang, W. Xu, WY. Wang, "PECO: Examining Single Sentence Label Leakage in Natural Language Inference Datasets," EACL 2023 arXiv:2112.09237, May 2023.
- [c15] M. Ho*, A. Sharma*, J. Chang*, **M. Saxon**, S. Levy, Y. Lu, WY. Wang, "WikiWhy: Answering and Explaining Cause-and-Effect Questions," **ICLR 2023** *Oral* (*top* 5%.) **arXiv:2210.12152**, May 2023.
- [C14] X. Wang, M. Saxon, J. Li, H. Zhang, K. Zhang, WY. Wang, "Causal Balancing for Domain Generalization," ICLR 2023 arXiv:2206.05263, May 2023.
- [C13] W. Xu, Y. Tuan, Y. Lu, **M. Saxon**, L. Li, WY. Wang, "Not All Errors are Equal: Learning Text Generation Metrics using Stratified Error Synthesis," **EMNLP 2022 F arXiv:2210.05035**, Dec 2022.
- [C12] W. Xu, **M. Saxon**, M. Sra, WY. Wang, "Self-Supervised Knowledge Assimilation for Expert-Layman Style Transfer," **AAAI 2022 arXiv:2110.02950**, Jan 2022.
- [c11] X. Wang, W. Chen, **M. Saxon**, WY. Wang, "Counterfactual Maximum Likelihood Estimation for Training Deep Networks," **NeurIPS 2021 arXiv:2106.03831**, Dec 2021.
- [C10] M. Saxon, S. Levy, X. Wang, A. Albalak, WY. Wang, "Modeling Disclosive Transparency in NLP Application Descriptions," EMNLP 2021 *Oral* (8% of subs.) arXiv:2101.00433, pp. 2023–2037.
- [c9] **M. Saxon**, S. Choudhary, J. McKenna, A. Mouchtaris, "End-to-End Spoken Language Understanding for Generalized Voice Assistants," **Interspeech 2021**, pp. 4738–4742.
- S. Levy, **M. Saxon**, WY. Wang, "The Truth is Out There: Investigating Conspiracy Theories in Text Generation," arXiv:2101.00379, Findings of ACL 2021, pp. 4718–4729.
- [J7] **M. Saxon**, A. Tripathi, Y. Jiao, J. Liss, V. Berisha, "Robust Estimation of Hypernasality in Dysarthria," **IEEE Trans. on Audio, Speech, and Language Processing** 2020, Vol. 28, pp. 2511–2522.
- [c6] **M. Saxon***, J. McKenna*, S. Choudhary*, G. Strimel, A. Mouchtaris, "Semantic Complexity in Endto-End Spoken Language Understanding," **Interspeech 2020**, pp. 4273–4277.
- [c5] M. Moore, P. Papreja, **M. Saxon**, V. Berisha, S. Panchanathan, "UncommonVoice: A Crowdsourced Dataset of Dysphonic Speech," **Interspeech 2020**, pp. 2532–2536.
- [C4] M. Moore, **M. Saxon**, H. Venkateswara, V. Berisha, S. Panchanathan, "Say what? A dataset for exploring the error patterns that two ASR engines make," **Interspeech 2019**, pp. 2528–2532.
- [C3] **M. Saxon**, J. Liss, V. Berisha, "Objective Measures of Plosive Nasalization in Hypernasal Speech," 2019 **IEEE ICASSP 2019**, pp. 6520–6524.
- [w2] M. Saxon*, S. Bhandari*, L. Ruskin, G. Honda, "Word Pair Convolutional Model for Happy Moment Classification," 2nd Workshop on Affective Content Analysis, AAAI 2019, pp. 111–119. (Workshop Oral; CL-Aff Shared task runner up, 2/47)
- [c1] T. Houghton, M. Saxon, Z. Song, H. Nyugen, H. Jiang and H. Yu, "2D Grating Pitch Mapping of a through Silicon Via (TSV) and Solder Ball Interconnect Region Using Laser Diffraction" IEEE 66th Electronic Components and Technology Conference (ECTC) 2016, pp. 2222–2227. (Texas Instruments Best Student Interactive Paper Award)

Select Non-archival Presentations

- [n4] M. Saxon, WY. Wang, "Disparities in Text-to-Image Model Concept Possession Across Languages,"
 FAccT 2023 Oral (Non-archival) OpenReview: 5H2m3tCEaQ, Jun 2023.
- [n3] **M. Saxon**, X. Wang, W. Xu, WY. Wang, "Automated Cheating Feature Semantic Identification for NLI Datasets," **SoCal NLP 2022**, Nov 2022.

Professional Experience				
AMD (Open Source Generative AI)	Bellevue, WA			
Research Intern	6/2024–10/2024			
Meta (Facebook Conversational AI)	Menlo Park, CA			
Research Intern	6/2022–10/2022			
Amazon (Alexa Web-based Question Answering)	Manhattan Beach, CA			
Applied Science Intern	6/2021-9/2021			
Amazon (Alexa Edge ML)	Pittsburgh, PA			
Applied Science Intern (2x)	5/2019-8/2019, 1/2020-8/2020			
Invited Talks				
University of Maryland, College Park UMD CLIP Seminar	5/2024			
Georgetown University NLP Group Presentation	5/2024			
University of Maryland, Baltimore Perception, Prediction, and Reason	ning Seminar 4/2024			
Arizona State University Active Perception Group Presentation	11/2023			
USC Information Sciences Institute Natural Language Processing Sen	minar 11/2023			
Service				

Service

Program Co-Chair, 2022 Southern California NLP Workshop (SoCalNLP)	11/2022
Reviewer, AAAI, EMNLP, ACL, EACL, NeurIPS, ICLR, ACM FAccT, ICASSP, Interspeech	2020–present
Mentor, FIRST Robotics Team 2478 (Westwood Robotics), Mesa, AZ	2014-2016

Mentoring

Mahsa Khoshnoodi	2023-2024	Fatima Fellowship Mentee	\Rightarrow	PhD. admit, Stony Brook
Fatima Jahara	2023-2024	Fatima Fellowship Mentee	\Rightarrow	PhD. admit, Rutgers
Matthew Ho	2021-2024	UCSB Undergrad	\Rightarrow	Ph.D. admit, UC San Diego
Aditya Sharma	2021-2024	UCSB Undergrad, MS	\Rightarrow	Incoming SWE, Google
Avani Tanna	2022-2023	UCSB MS student	\Rightarrow	GenAI Engineer, Domino.AI
Justin Chang	2021–2023	UCSB Undergrad	\Rightarrow	SWE, Aptos

Honors, Fellowships, Scholarships

University of California, Santa Barbara Neal Fenzi—Resonant Founder Fellowship	
National Science Foundation Graduate Research Fellowship (NSF GRFP)	2020
University of California, Santa Barbara Center for Responsible Machine Learning Fellowship	2020
University of California, Santa Barbara Graduate Division Central Fellowship	2020
Arizona State University Presidential Scholarship (Full Tuition)	2014